CLAIMS

1. Pallet foot (10) for a pallet (1) having:

a) a cardboard tube (11) having an angular cross-section, in which

b) the cardboard tube (11) has open areas (20) providing a transverse passage through the pallet feet (10) and having closed load-bearing areas (30), in which

c) each of the closed, load-bearing areas (30) is subdivided by stiffening walls (32) into a plurality of chambers and in which

d) the stiffening walls (32) are formed from inwardly folded side walls of the cardboard tube (11)

2. Pallet foot according to claim 1, characterized in that the cardboard tube (11) is made from wound paper layers (13) or wound recycled paper layers.

3. Pallet foot according to claim 1, wherein the cardboard tube (11) has a quadrangular or octagonal cross-sectional shape.

4. Pallet foot according to one of the claims 1 or 2, wherein the cardboard tube (11) is made from a cardboard material hardened by means of water glass:

5. Pallet foot according to one of the claims 1 to 3, wherein the closed areas of the pallet feet (30) have side walls provided with impressions (39) essentially running parallel to the load direction.

6. Pallet foot according to one of the claims 1 to 4, wherein the closed areas (30) are subdivided into in each case three or four chambers (34).

7. Pallet foot according to claim 5, wherein the individual chambers (34) of the closed areas (30) have the same shape.

8. Pallet foot according to one of the claims 1 to 6, wherein the stiffening walls (32) are folded at folding grooves (36) running parallel to the load direction.

9. Pallet foot according to one of the claims 1 to 7, wherein the stiffening walls (32) of a closed area (30) are bonded together flat.

10. Pallet foot according to one of the claims 1 to 8, wherein the cardboard tube (11) has a through upper wall (16) and a through lower wall (14), the stiffening walls (32) being bonded to the upper wall (16) and the lower wall (14).

11. Pallet foot according to one of the claims 1 to 9, wherein the closed areas (30) have in each case at least one side window (22) in order to connect the pallet foot (10) to a crossbar (300).

12. Pallet (1) having:

a) a substantially flat, planar cover plate (50),

b) at least two pallet feet (10) according to one of the claims 1 to 9.

13. Pallet according to claim 11, wherein the cover plate (50) is made from cardboard or recycled cardboard.

14. Pallet according to one of the claims 11 or 12, wherein the pallet feet (10) are bonded parallel to one another to the cover plate (50).

15. Pallet according to one of the claims 11 to 13 having at least one crossbar (300), which is connected to the pallet feet (10) and runs perpendicular thereto.

16. Method for the manufacture of a pallet foot (10) for a pallet, having the following steps:

1. punching lines of cut (38) in the circumferential surface of an angular cardboard tube (11) in order to cut out stiffening walls (32);

2. stamping folding grooves (36) in the circumferential surface of the cardboard tube (11) in order to form folding grooves for folding the stiffening walls (32); and

3. folding the stiffening walls (36) in order to subdivide into chambers (34) the load-bearing areas (30) of pallet foot (10)

17. Method according to claim 16, also having the following steps, which are performed prior to the other steps:

1. winding a continuous cardboard tube (22) from paper or cardboard layers (1 3) ; and

2. cutting the continuous cardboard tube (12) to a desired length for forming a single cardboard tube (12).

18. Method according to one of the claims 16 or 17, also comprising the step of making impressions (39) in the circumferential surface of the cardboard tube (11), the impressions (39) running substantially parallel to the desired load direction.

19. Method according to claim 18, wherein the steps of punching lines of cut (38), stamping folding grooves (36) and forming impressions (39) are performed simultaneously.

20. Method according to one of the claims 16 to 19, further including the step of impregnating the cardboard tube (11) with water glass.

21. Method according to claim 20, further including the step of compressing and heating the cardboard tube (11) to harden the latter in void-free manner.

22. Method according to one of the claims 16 to 21, further including the step of applying adhesive to partial areas of the stiffening walls (32) in order to bond the latter together.

23. Plant (100) for manufacturing pallet feet (10) having:

a) a tube processing machine (110) for punching lines of cut (38) and making folding grooves (36) in a circumferential surface of an angular cardboard tube (11); and

b) a folding machine (120) for folding stiffening walls (32) along the folding grooves (36) for forming load-bearing areas (30) of a pallet foot (10).

24. Plant according to claim 23, further including:

a) a tube winding machine (150) for producing a continuous cardboard tube (1 2) ; and

b) a cutting device (160) for cutting the continuous cardboard tube (12) in order to provide a cardboard tube (11) with the desired length.

25. Plant according to one of the claims 23 or 24, in which the tube processing machine (110) has an inner tool (111), which can be introduced into the cardboard tube and in which the inner tool (111) can be radially expanded in order to engage on the inner wall (18) of cardboard tube (11).

26. Plant according to claim 25, wherein the inner tube (111) has replaceable working surfaces for grooving, stamping and punching.

27. Plant according to one of the claims 25 or 26, wherein the inner tool (111) has at least one electric heating element (113).

28. Plant according to one of the claims 23 to 27, wherein the tube processing machine (110) has outer tools (114), which comprise replaceable punching tools (115) for punching lines of cut (38) in the circumferential surface of the cardboard tube (11) and replaceable stamping tools (116) for making folding grooves (36) in the circumferential surface of cardboard tube 01).

29. Plant according to claim 28, wherein the outer tools (114) also have replaceable stamping tools (117) for making impressions (39).

30. Plant according to one of the claims 23 to 29, also including edge cutters (118) for punching longitudinally directed lines of cut (38) in the circumferential tube (11).

31. Plant according to one of the claims 23 to 30, wherein the folding machine (120) has vacuum exhausters (121) in order to bend the stiffening walls outwards from the circumferential surface of cardboard tube (11).

32. Plant according to one of the claims 23 to 31, wherein the folding machine (120) has motor-driven turn-in claws (122, 123) in order to fold the stiffening walls (32) into the load-bearing areas (30) of cardboard tube (11).

33. Plant according to claim 32, wherein the turn-in claws (122, 123) can be turned by stepping motors (124, 125) and moved pneumatically up and down.

34. Method for the manufacture of a pallet (1) having the following steps in the indicated order:

1. shaping blanks (10) from an angular cardboard tube (11);

2. dispatch of the blanks (10) to the end user;

3. fixing the blanks (10) to a suitable cover plate (50) on the premises of the end user.

35. Method according to claim 34, wherein the blanks (10) are pallet feet or cross-struts (10) according to one of the claims 1 to 11.

36. Method according to one of the claims 34 or 35, also including the step of supplying the cover plate (50) to the end user.